REMARKS

This Amendment is in response to the Office Action of August 15, 2002. Applicant respectfully submits that all the claims presently on file are in condition for allowance, which action is earnestly solicited.

THE CLAIMS

REJECTION UNDER 325 USC 103

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vig (US 6,038,554) in view of Bowman et al. (US 6,185,558B1). Applicant respectfully traverses this rejection and submits that the claims on file are not obvious in view of the Vig and Bowman et al. patents, and are patentable thereover. In support of this position, Applicant submits the following arguments:

A. Legal Standards for Obviousness

The following are court opinions set the general standards in support of Applicant's position of non obviousness, with emphasis added for added clarity:

- "**Obviousness cannot be established** by combining the teachings of the prior art to produce the claimed invention, **absent some teaching or suggestion** supporting the combination." *In re Fine, 837 F.2d at 1075, 5 USPQ2d at 1598* (citing *ACS Hosp. Sys. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984))*. **What a reference teaches** and whether it teaches toward or **away from the claimed invention** are questions of fact. See *Raytheon Co. v. Roper Corp., 724 F.2d 951, 960-61, 220 USPQ 592, 599-600 (Fed. Cir. 1983)*, cert. denied, *469 U.S. 835, 83 L. Ed. 2d 69, 105 S. Ct. 127 (1984).* "

- "When a rejection depends on a combination of prior art references, there must be **some teaching, suggestion, or motivation** to combine the references. See *In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)*."

- "With respect to core factual findings in a determination of patentability, however, the **Board cannot simply reach conclusions based on its own understanding or experience** -- or on its assessment of what would be basic knowledge or

common sense. **Rather, the Board must point to some concrete evidence in the record** in support of these findings." See In re Zurko, 258 F.3d 1379 (Fed. Cir. 2001).

- "We have noted that **evidence of a suggestion, teaching, or motivation to combine** may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg. v. SGS Imports Intern., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references," Rouffet, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, **the showing must be clear and particular**. See, e.g., C.R. Bard, 157 F.3d at 1352, 48 USPQ2d at 1232. **Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence."** E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact."); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977)." See In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999).

- "To prevent the use of hindsight based on the invention to defeat patentability of the invention, **this court requires the examiner to show a motivation to combine the references** that create the case of obviousness. In other words, **the examiner must show reasons** that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references **for combination in the manner claimed**." See In re Rouffet, 149, F.3d 1350 (Fed. Cir. 1998).

B. Brief Summary of the Present Invention

Prior to presenting substantive arguments in favor of the allowability of the claims on file, it might be desirable to summarize the present invention.

As indicated by the title, the present invention relates to a system and method for integrating <u>off-line user ratings of businesses</u> with search engines," and addresses the problem facing current search engines that "use a variety of criteria to order matches to the user query and to rank the search results with higher quality pages listed at the top of the search list. Assessing quality involves both accurately matching the user

query and identifying a useful, current web page. <u>For instance, search engines may order the matches based on what is referred to herein as "static criteria". Exemplary static criteria are the highest popularity, most recently updated, most visited, most queried, or most interconnected. It is common for users to limit the review of their search to only the first few matches of the search list.</u>" (Reference is made to page 2, line 18 through page 3, line 4 of the specification.)

The present invention also aims at providing an "adequate mechanism by which searches of business sites can be ordered based upon interactive criteria about the businesses themselves, <u>correlating higher quality search matches to higher business satisfaction ratings. For example, popularity, is a commonly used static criterion which is determined by the number of visits or queries of business sites, and which may depend on advertising, strategic business alliances, or creative naming of a site, and is therefore independent of customers satisfaction with the ranked businesses.</u> Therefore, there is still an unsatisfied need for a system and method that integrate user provided interactive criteria, such as customers and on-line <u>users' satisfaction, with search engine results.</u>" Reference is made to page 3, lines 12-20 of the specification.

"Methods for collecting these ratings include, but are not limited to <u>offline surveys such as consumers reports and surveys that are obtained through web or non-web based rating services that assess, for example, customer satisfaction.</u> In another embodiment, rankings are provided by an <u>independent ranking system through either offline or on-line surveys and the **rankings are established independent of the search engine or the user of the search engine**</u>. Optionally, on-line questionnaires can be attached to the search engine, and the ratings provided by such on-line questionnaires and offline ratings can be weighted and combined to form a composite rating system.

The business rating system integrates the off-line ratings (and optionally the on-line ratings) with the search results, and ranks and presents the integrated search results to the user based on such ratings. In this manner, the user of a search engine receives feedback from other off-line and possibly on-line users and/or customers about businesses of interest. Those businesses with higher ratings are ranked at the top of the search list.

In operation, the user enters a query in the user interface of the search engine. The search engine searches the metadata repository for sites that match the user query, and also searches the business ratings repository. One or more sites in the metadata search results may correspond to matches in the business ratings search. The search engine determines the rank of each corresponding site in the ranking database and ranks the search results based on interactive criteria about the businesses. The ranked results are then presented to the on-line user." Reference is made to page 4, line 4 through page 5, line 15 of the specification, with emphasis added.

C. Vig Patent

The office action states that regarding claims 1, 9, and 17, Vig discloses an off line ranking system for receiving rating data compiled from an off-line source based on interactive criteria that include feedback from users about businesses of interest to a particular user, regardless of ranking by the particular user, (Col. 6, lines 35-col. 7, lines 25, Col. 59, lines 30-50, and Col. 65, lines 41-Col. 66, lines 5); wherein the rating data correlates higher quality search matches to higher business satisfaction rating, (Col. 54, lines 36-Col. 55, lines 44); and wherein the off-line ranking system indexes the rating data, (Col. 59, lines 3050); a ranking repository for storing the rating data indexed by the off line ranking system, (Col. 59, lines 30-50 and Col. 65, lines 41-Col. 66, lines 5).

The office action further adds that "Vig does not clearly show a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches."

D. Bowman et al. Patent

Briefly, the Bowman et al. patent describes a "software facility for identifying the items most relevant to a current query based on items selected in connection with similar queries. In preferred embodiments of the invention, the facility receives a query specifying one or more query terms. In response, the facility generates a query result identifying a plurality of items that satisfy the query. The facility then produces a ranking value for at least a portion of the items identified in the query result by combining the relative frequencies with which users selected that item from the query results generated from queries specifying each of the terms specified by the query. The facility identifies as most relevant those items having the highest ranking values." (Emphasis added - Refer to the Abstract).

Further, Bowman et al. describe the rating function of their invention as follows: "The rating function preferably retrieves a rating score for the combination of an item and a term from a rating table generated by the facility. The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term. (Emphasis added - Refer to Col. 2, lines 29-35).

Bowman et al. also list the various embodiments for their invention, as follows: "Various embodiments of the invention base rating scores on different kinds of selection actions performed by the users on items identified in query results. These include whether the user displayed additional information about an item, how much time the user spent viewing the additional information about the item, how many hyperlinks the user followed within the additional information about the item, whether

the user added the item to his or her shopping basket, and whether the user ultimately purchased the item. Embodiments of the invention also consider selection actions not relating to query results, such as typing an item's item identifier rather than choosing the item from a query result. Additional embodiments of the invention incorporate into the ranking process information about the user submitting the query by maintaining and applying separate rating scores for users in different demographic groups, such as those of the same sex, age, income, or geographic category. Certain embodiments also incorporate behavioral information about specific users. Further, rating scores may be produced by a rating function that combines different types of information reflecting collective and individual user preferences. Some embodiments of the invention utilize specialized strategies for incorporating into the rating scores information about queries submitted in different time frames." (Refer to Col. 7, line 63 - Col. 8, line 19).

The office action states that Bowman teaches the facility displaying the items identified in the query result in accordance with the ranking values generated for the items in step 806. Step 808 preferably involves sorting the items in the query result in decreasing order of the ranking values, and/or subsetting the items in the query result to include only those items above a threshold ranking value, or only a predetermined number of items having the highest ranking values, (Col. 9, lines 56-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vig by including the facility displays the items identified in the query result in accordance with the ranking values generated for the items in step 806. Step 808 preferably involves sorting the items in the query result in decreasing order of the ranking values, and/or subsetting the items in the query result to include only those items above a threshold ranking value, or only a predetermined number of items having the highest ranking values, as taught by Bowman, so the user can generate a ranking value for a particular item in a query result, the facility combines the rating scores corresponding to that item and the terms of the query, (Col. 2, lines 40-43).

E. Claim 1 and its Dependent Claims 2-8.

Applicant will now present arguments in support of allowance of the independent claim 1 over the obviousness rejection in view of the Vig and the Bowman et al. patents. Claim 1 recites the following elements which, in combination with the other elements and limitations, are not described in either Vig, Bowman et al., or the combination thereof:

> "1. A system for use with a search engine to rank search results, comprising:
> an off-line ranking system for receiving <u>any of users' off-line surveys or feedback</u> about businesses;
> <u>the off-line ranking system generating rating data from the any of the users' off-line surveys or feedback;</u>
> wherein the rating data <u>correlates higher quality search matches to higher business satisfaction ratings;</u> and
> wherein the off-line ranking system <u>indexes the rating data;</u>
> a ranking repository for <u>storing the rating data</u> indexed by the off-line ranking system; and
> a result sorter for <u>sorting query results</u> generated by the search engine, <u>based on the rating data</u> from the ranking repository, and for generating ranked matches."
> (Emphasis added).

Applicant respectfully submits that the text in <u>the Vig patent</u> that has been cited in the office action, as understood by Applicant, <u>does not describe "rating data correlates higher quality search matches to higher business satisfaction rating."</u> As a result, <u>Vig cannot generate rating data that correlates higher quality matches to higher business satisfaction rating,</u> nor can it <u>index rating data that correlates higher quality matches to higher business satisfaction rating,</u> nor can it <u>sort the query results based on the rating data that correlates higher quality matches to higher business satisfaction rating.</u>

With regard to Bowman, it does not teach the foregoing missing elements, and as such the combination of the Vig patent and the Bowman et al. patent is not permissible under the legal standards of obviousness (Refer to section "A" above). Even if such a combination were hypothetically allowable, such combination would still not form an adequate ground for an obviousness rejection in that the Bowman design relies on <u>**"the number of visits or queries of business sites," in that,**</u>

contrary to the present invention, the Bowman design may not be too reliable because it may depend on advertising, strategic business alliances, or creative naming of a site as discussed in the present application.

The office action in essence, substitutes "higher business satisfaction ratings" with "highest ranking values." Such substitution is not warranted in that though, at some stage the query results could be sorted according to their highest ranking values relative to the query, the present invention goes a step farther and explains that the query results (whether or not they have been sorted according to their highest ranking values) are now sorted based on the rating data that correlates higher quality matches to higher business satisfaction rating. To summarize, highest ranking values and higher business satisfaction ratings are not the same criteria, and need to be distinguished.

To conclude, in dependent claim 1 is not obvious in view of Vig or Bowman, whether considered separately or in combination with each other. As a result, claim 1 and the claims dependent thereon (claims 2 - 8) are allowable, and such allowance is respectfully requested.

F. Claims 9 - 24

Independent claims 9 and 17 are allowable for similar reasons as presented earlier in favor of allowance of claim 1, since claims 9 and 17 contain substantially similar elements and limitations as in claim 1. As a result, the independent claims 9 and 17 and the claims dependent thereon (claims 10 - 16, and 18 - 24) are allowable, and such allowance is respectfully requested.

F.Telephone Interview

Applicant respectfully requests another telephone interview to discuss the claims on file in view of the present amendment.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

THE CLAIMS

Claims 1, 9, and 17 have been amended, as follows:

1. (Replacement) A system for use with a search engine to rank search results, comprising:

an off-line ranking system for receiving <u>any of users' off-line surveys or feedback</u> [rating data compiled from an off-line source based on interactive criteria that include feedback from users] about businesses [of interest to a particular user, regardless of ranking by the particular user];

<u>the off-line ranking system generating rating data from the any of the users' off-line surveys or feedback;</u>

wherein the rating data correlates higher quality search matches to higher business satisfaction ratings; and

wherein the off-line ranking system indexes the rating data;

a ranking repository for storing the rating data indexed by the off-line ranking system; and

a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

9. (Replacement) A computer program product for use with a search engine to rank search results, comprising:

an off-line ranking system for receiving <u>any of users' off-line surveys or feedback</u> [rating data compiled from an off-line source based on interactive criteria that include feedback from users] about businesses [of interest to a particular user, regardless of ranking by the particular user];

<u>the off-line ranking system generating rating data from the any of the users' off-line surveys or feedback;</u>

wherein the rating data correlates higher quality search matches to higher business satisfaction ratings; and

wherein the off-line ranking system indexes the rating data;

a ranking repository for storing the rating data indexed by the off-line ranking system; and

a result sorter for sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

17. (Replacement) A method for use with a search engine to rank search results, comprising:

·receiving <u>any of users' off-line surveys or feedback</u> [rating data compiled from an off-line source based on interactive criteria that include feedback from users] about businesses [of interest to a particular user, regardless of ranking by the particular user];

<u>the off-line ranking system generating rating data from the any of the users' off-line surveys or feedback;</u>

the rating data correlating higher quality search matches to higher business satisfaction ratings;

indexing the rating data by means of an off-line ranking system;

storing the rating data indexed by the off-line ranking system, in a ranking repository; and

sorting query results generated by the search engine, based on the rating data from the ranking repository, and for generating ranked matches.

CONCLUSION

All the claims presently on file in the present application are in condition for immediate allowance, and such action is respectfully requested. If it is felt for any reason that direct communication would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned at the below-listed telephone number.

Respectfully submitted,

Date: <u>October 28, 2002</u>

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